

# MICHIGAN FARMER AND STATE JOURNAL OF AGRICULTURE.

GIBBONS BROTHERS, Publishers.

DETROIT, MONDAY, JULY 25, 1887--WITH HOUSEHOLD SUPPLEMENT.

PRICE \$1.50 PER YEAR.

VOLUME XVIII.

NUMBER 30.

## CONTENTS.

Agricultural—The Future of the American Farmer—Importation of Stock for Breeding Purposes—Washing Sheep—How Shall the Soil be Prepared?—Don't—The Merrimac in France—Washing Wool—Notes from the West—Itemized Statement—Incomes from Paris Green.....	1
The Horse—The Detroit Trotting Meeting—Horse Gossip.....	2
The Farm—A Sheep Destroyer—Clover Hay—Powing the Corn—Agricultural Items.....	2
The Poultry Farm—Duck Farming in China—The Young Turkeys.....	2
Horticultural—Training Raspberry Vines—Mulching in Depth—Small Fruits for the Home Garden—The Length of Roots—Oil of Peppermint—Raspberries for Market and Home Use—Floricultural—Horticultural Notes.....	3
Apiculture—Aparine Notes.....	3
Editorial—Wheat—Corn and Oats—Dry Weather—The Duty on Salt—Detroit Trotting Meeting—Transfers of Sheep.....	3
Sons Summary—Michigan—General—Foreign.....	4
Editorial—The Two Lights—The Letter—Miscellaneous—Catching Tigers—Enveloped by a Blanket—Fish—Dorcas Caledon—Good-bye, Old Cow—Terrific Combat—Bill Nye in the Role of an Adviser—Varieties—Chaf.....	6
Cheep Cattle but Dear Beef—Permanent Pastures—Cider Making—Wounds—Method of Applying Commercial Fertilizers—Commercial.....	7

## Agricultural

### THE FUTURE OF THE AMERICAN FARMER.

A Pennsylvania correspondent of the *National Stockman* has a lengthy article upon this subject, which is a string of complaints about the shortcomings of the people of the present generation, the way in which farmers are robbed, the venality of public men and the agricultural and daily newspapers, which he says are controlled by "monopolies," and win is up with the suggestion that all should return to the methods of our fathers. Here are some of his ideas:

"In 1880 only about six per cent. of our population lived in cities of over 8,000 inhabitants, while the census returns of 1880 showed that the ratio of population in these larger towns had increased to the enormous proportion of twenty-five per cent. of our population."

\* \* \* \* \*

"Not only is the general newspaper of the country towns robbed of its legitimate patronage by the dailies of the great cities, and its influence regarded as of no consequence, but the papers published in the special interest of agriculture are issued from the larger centers of trade and population. For example, there are, I believe, no less than twenty-five periodicals of various kinds printed in the city of Chicago alone in the interest of some branch of agriculture or horticulture."

Now can hardly be supposed that in the discussion of questions in controversy between these centers of trade and speculation and the productive country districts, these publications of the great cities would be as zealous in their advocacy of country interests as they would be if they were located in country towns.

\* \* \* \* \*

"The growing extravagance of our people, and the facilities for cheap manufacturing now afford the various applications of steam power is doing much to increase the percentage of population engaged in manufacturing as compared with people engaged in farming."

"Heretofore it has been our boast that we was a just and healthy diffusion of our manufacturing industries which was a safeguard against the oppressive monopolies always to be found where trade and manufacturing were absorbed by a few great men."

"Half a century ago the farmer's maxim was 'to live within himself'—that is to buy only that which could not be produced at home—to grow his own vegetables to make butter and cheese for family use, and for the most part to breed all the live stock that he grazed or fed. All this is now rapidly changing. The business farmer boasts of his 'business operations.' He buys his cattle, pigs and sheep, and has Texas fever, hog cholera and foot rot, glanders and pleura-pneumonia! He buys his apples, sells the mills and cranes to the factories; and honest, home-made butter and cheese are giving way to inferior counterfeit products, and the maxim now is not to manufacture anything at home that you can buy for less money than it will cost to produce it at home—that is less nominal cash price than your calculation shows it will cost to produce it. By this process it is easy to show that you cannot afford to produce anything at home."

"... everything we produce and buy, everything we consume, increases the trading and manufacturing character and diminishes the percentage of farming classes."

"It is not time for honest country people to seriously consider the practicability and expediency of a systematic and combined effort to return to the methods of our fathers, if they would maintain the just rights and influence of their high vocation?"

We take exceptions to the wisdom of some of the arguments of this correspondent. The statement that there is a less percentage of the population engaged in agriculture than formerly is true. And the farmer is the man who should feel pleased over this fact. If a still larger proportion of the people were engaged in manufacturing, and less foreign goods imported, would not redound to the benefit of those engaged in producing the great necessities of life? The fewer farmers the better prices for farm products. The less wheat, wool, pork, beef, corn and cotton grown the better prices they realize.

The idea that because an agricultural paper is published at a trade center it must necessarily misrepresent the interest it was started to sub-

### WASHING SHEEP.

PLAINWELL, July 18th, 1887.

To the Editor of the Michigan Farmer.  
In the FARMER of July 11th the article on the subject of "Washing Sheep and Marketing Wool," was so true in character, and of so great importance to the average farmer that I will venture a little experience of my own: In 1886 I had 37 grade Merino sheep. Washed them myself under two spouts in a clear-running brook. Sold wool for 25 cents per pound; fleeces averaged 7½ lbs. per head. In 1887 had the same sheep, with 13 added yearlings. Fed them myself, kept them in a clean place all winter, sheared early and did not wash. The first agent (a Kalazanian man) asked my price. Told him 30¢ and that it was not washed. He said it was the best un-washed wool he had seen, and wanted to see me again before I sold. Next buyer that came I told the same; he wanted to know how much I would ask if it was washed. I said 30 cents—just the same; that there was not a fleece that I would be ashamed for him or any man to open (this man bought my wool the year before), that the fleeces averaged but a trifle over seven lbs. this year, and I knew that they wintered better. I finally sold it for 30 cents straight, except the buck; and I will say that I felt willing to compare it with any washed clip in the neighborhood.

In the FARMER of June 11th the H. W. Munger of St. Johns (a buyer of wool for thirty years), gave some most sensible views on the kind of wool and how it should be sold. He thought we were breeding too much for the heavy fleece, and not for the cleansed pounds of wool. In proof of this he said that for a number of years he had bought a certain buck's fleece which never sheared less than 30 lbs, but never saw that fleece when he thought it would clean five pounds of clean wool. Now we farmers may wash our greasy, gummy sheep twice over, and keep them two weeks to dry and start the oil. Its cleanliness or weight will be but little better than if left undone. All that we really gain will be a lame back, a dead sheep or two, and be out a little whisky. If the farmers would take a first-class plan, and read it all the year round, we need not depend on agents to post us on the markets, and what is the value of our wheat and wool. Every man ought to be conscious whether his wool is clean or dirty, and be willing to sell it on its merits. The manufacturer has to cleanse all our wool at best, and there is too much of a handle made and too much hububbing about our washing sheep. And again it is cruel to see and to have our heavy shearers sweltering in the heat and dust until near the middle of June; the poor sheep may suffer long for a cent or two of grease we get out of them, which the cold water did not wash out of them; while if kept clean in the winter, sheared as soon as it gets warm in the spring, they must feel better, do better, and the wool is just as good, if not better. A. G. H.

### HOW SHALL THE SOIL BE PREPARED.

CRESSY'S CORNERS, July 21, 1887.

To the Editor of the Michigan Farmer.

Most of the last spring's clover and wheat seeding in our country was a failure. I have one field upon which there has been grown a crop of clover succeeded by a crop of rye. It was sown to meet a want. We seeded to clover and timothy in the spring, sowing early, when, as we thought, the ground was in fine condition to receive the seed, etc. But the hot and dry weather of May has entirely used it up, and it really ought to be sown. What would you, or any of your numerous correspondents, advise us to do? Shall we plow this fall, say in August or September, and then seed to cultivate, harrow, and then sow? Should we re-seed to rye this fall and trying our luck as before? Any information from those who have had experience in the matter will be thankfully received, by a reader of the FARMER and others.

The complaint of our correspondent is a very common one throughout the State, except where local rains have changed the general conditions. Much of the seeding in wheat never appeared for lack of moisture to germinate the seed, or, if it sprouted when the June rains came, the continued dry weather has obliterated every vestige of it long since. The seeding in spring grain was excellent up to the first of July, but every acre of it almost has been swept clean of clover since that time. In probably one-half the cases, this condition of things is a calamity. They are not the poor farmers alone who are suffering, but those who like our correspondent make every effort to keep their farms up to the maximum degree of fertility. These fields must be again re-seeded, and it needs the combined wisdom of our readers, whose opinions we ask through the columns of the FARMER, to determine upon the wisest course to pursue. Experiments will be made—let farmers relate them and tell how they are preparing for the seed. Some fields can doubtless lie over for a spring crop or be stubbled to wheat this fall and try again. I have nine acres in the exact condition which our correspondent describes; 16 acres of the field was sown to timothy last fall, which of course is good now, and I shall let that remain a year or two. I have begun already the course I have decided upon, that is, to cultivate with a wheel cultivator each way, then cornerwise each way. This I do by first going from corner to corner, gear around

and return. When the starting point is reached, turn at right angles to the right, and go square across the first cultivator marks and turn again to cross the field after the manner of back-furrowing except that the turn is made as soon as the border of the field or fence is reached, and cross the previous marks. This obviates a complete turn at the ends, and the turns are made at an oblique angle with the fence on each of the four sides. The finish is made at the other two corners, and when these are reached the field is cultivated or harrowed both ways. This applies to a square field. If the field is oblong, with right angles, the first turn across the ends should be at a longer angle so that the long side will gain the fastest. This has nothing to do with the catch of clover, but it is a very satisfactory way of working cornerwise, and I wish to work it in this way so that every inch of the surface will be stirred up and subdued. On this field some sorrel and patches of June grass are appearing, and no superficial scratching will answer my purpose. If stubble is fitted for seed, it must be subdued. I can work this field four times as proposed, with the same labor as once plowing, and I believe it will then be in better shape for the seed. Before this appears in the FARMER the field will be fitted as proposed, if not prevented by unforeseen circumstances. Then if copious rains come soon, I shall sow to clover and timothy, harrow or plank it down smooth. If the rains come before the kernels of wheat are matted I shall sow no rye. If not, I shall sow about half a bushel of rye to the acre, and pasture with cows and horses. If the rye keeps ahead of the stock next year, I shall move it off in June for hay, for I am no friend to rye as a crop. I should advise to fit the ground at once, so that when the rains do come you are ready to take advantage of the conditions. I think a thorough working of the top much better than plowing, for the reason that a farmer who holds is given the plants, and they sustain themselves better through succeeding drouths and the winter. I wish to report that in my opinion no superficial surface work will succeed, or ought to. There is no cheap way to success with clover; half a stand and the remainder weeds is the result.

A. C. G.

### DON'T.

There are thousand of questions arising in one's experience, but which we are undecided, and unable to give an explicit answer when interrogated on the one or several points; but there are some things about which we unhesitatingly decide, and say "don't" when a friend asks advice. There is knowledge enough in all the essential points of our needs and our enterprises to project a don't between the doubt and the difficulty, if only negative balm were applied in season. Many a note of Bohemian character would never have existed if the persuasive 'don't' had been properly heeded. We are often too chary of our negatives, and farmers sometimes delight—or seem to—in seeing a neighbor walk blindly toward a pitfall into which they themselves have at some time tumbled, without giving this friendly warning.

If another year any farmer is persuaded to wait for the grain to become ripe before beginning to harvest, our advice is, "don't." Every year's experience demonstrates the folly of waiting. The two or three days at the beginning, which are often spent in idly waiting for greater maturity of the grain, are always needed at the last end of the harvest, when help may be scarce or grain be wanting. The saving is so manifest when the practice is once entered upon and the old conservative influence is all evaporated, that every such farmer should say to his neighbor who is inclined to wait, "don't." He will be able to give plenty of reasons for this advice. The grain is brighter, sweeter and, I think, heavier, and the straw is 50 per cent. better, besides the satisfaction of getting through without a single worry induced by shelling grain and a general latedness.

Don't pin your faith upon a blessed rain coming when the moon "changes" for there is no such thing; all the almanacs to the contrary notwithstanding. I have been told for several days, by different individuals, that we may expect rain to-day, but the moon "changes" at three o'clock this afternoon. I am so presumptuous as to say that there will be no more "change" than that is now, at nine o'clock A. M., and no more reason on that score to expect rain. From full moon to full moon again is 28 days, and this time is divided up into periods or "quarters" of seven days each. Between these seven day periods the moon continues to wax or wane every moment of the time, and it is the most stupendous folly to assert that because just one-fourth of the moon's shining face is turned toward us this will produce a "change" in the weather. As well might you say to a friend or calling at her house at 2 p. m., "Your clock will 'change' in 15 minutes: and you may therefore expect company." I suppose a clock might be made to swing to the quarters at regular intervals, and I suppose Omnipotence could jerk the moon around to show us one-fourth of its illuminated side at once. This would be indeed a "change" such as might produce a commotion in the clouds, and serve as a plausible basis for prognostications regarding the weather. But as this division is only an arbitrary one, like the divisions of the night into

"watches," or the year into seasons, for convenience only, I say to those who look for wet weather when it is dry, or dry weather when it is wet, to occur on these eventual periods, "don't."

After another week of dry weather and of continual watching of the corn-fields, I say to those who are prone to follow the teachings of the constant cultivation theory, "Don't." Such fields are nearly as bad at the present as those where the early cultivation was deficient and some weeds suffered to grow. The weeds are now sapping the corn in the latter case, and the shortening of the root growth in the former both make the corn look sick. Cultivate thoroughly and deep as long as the ground is moist, but stop when it gets dry, and do not begin again until the earth is wet down to the roots.

The continued dry weather is drawing heavily upon the stores of fodder, and it will be quite important that all coarse fodder—straw and stalks—be carefully saved and secured from fall storms. Early cut straw put back in the barn or securely stacked and topped with marsh hay, will be a bonanza before spring, else the dry weather signs will all fall. A. C. G.

### THE MERINOS IN FRANCE.

From our Paris Correspondent.  
That sheep are the most profitable cattle a farmer can have, is an axiom as old as the hills. French agriculturists continue to be divided as to the maintenance of pure local, or perhaps native races, in preference to cross breeds. Does it always pay to rely on fleece alone; or to unite wool and preocity in flesh? The French farmer will in all probability stick to the breed suitable to his locality. He is a worshipper of the Merino; it comes more up, as a general rule, to his conditions of climate, pasturage and selection—the latter not in the sense of crossing, but from the best specimens of the Merino type. It is noted that a special show of Merinos should be organized, where animals from Spain and Germany could be compared with those of Naz and Rambouillet, along with fleeces from Australia, and those from long wool sheep in general. Such an exhibition would be interesting, but in all probability would have little effect on the decision of French wool growers.

The Merino breed appears to have a fascination for them. Its fine wool preserves its characteristics, remains so constant that no deterioration—ordinary hygienic conditions being observed—is to be feared. And this explains, why when crossings are undertaken with local breeds, the Merino is chosen. If preocity cannot be achieved, at least a paying fleece can be secured. The Merino has exercised a profound influence on sheep in every part of the world. Now it is this cosmopolitan faculty, that the breed has inherited from the mode of life of the foundation stock, which makes it so much a favorite, because so often a necessity. And the type remains the same everywhere, while its aptitudes have been developed, following economic necessities. It was in Saxon that the Merino first made a sensation outside of Spain; the Elector in 1765, imported over 100 choice rams and ewes, and by maintaining the purity of the ewes, and by the use of the Merino rams, it was a success. In thirteen years thousands of fleeces were every day combed and carded. This is Montevideo half past, the coming from New Zealand, and this is from the Cape. But what difference does it make to you about the washing? "Not a bit, in one respect," was the reply; "every ounce goes in there, and all is washed whether it has been washed before or not." Not a fleece but what passes through the troughs! In these troughs, in warm water, varying according to the wool from 80° to 110°, and even 120° in extreme cases, with a specially made soap, the fleece passes through an endless chain of forks keeping them moving all the time. At the end of one series of troughs the wool is lifted into fresh water, and passed through it, and so into a third, until the greasy, sticky fleeces come out at the end as white as snow, and are passed into another room to be carded, and combed and classified. "If you wash all afresh," was the question put, "where is the good of washing on the other side?" "Well, was it not sometimes more than four or five pounds of wool?" was the reply. "Sixty pounds of wool, the tops, and sooty, out of sixteen pounds of fleece." "Sixty per cent," was the answer, "of matter which is not wool? What on earth is the 60 per cent made up of?" "Dirt and grease. They take out tons of matter—useful for manure; and skim off grease enough to oil the wheels of all the locomotives in the world."

I am to understand that carriage alone makes it economical to wash wool at the Cape or in Australia—for, by so doing, nearly two-thirds of the carriage is saved?" "Yes," was the reply, "but at a great loss to the wool. It never cards and combs so well as when it comes fresh out of its first dip. You cannot restore the elasticity to wool which has been wetted and dried. It is more brittle, and yields less of top and more of waste than the same wool when it has not been washed."

"So, then, your wool is not washed?"

"No, not washed," was the reply; "but at the flocks master?" was the next question—"but where is the grease profitable?"

"Not so," was the reply; "the greasier the wool, the hotter the water has to be, and the more the soap will be required."

The grease won't pay for these by £2,000 a year in this business."

At all events, there will be no mistake about the wool-washers.

They, in the plainest terms, declare that, for their purposes, the wool is far better sent just as it grows.

few who aim to give a Southdown form to the Rambouillet. Lambs of the latter have a mean live weight, varying from 55 to 77 lbs. An adult ram will weight 209 lbs.; and the unwashed fleece 11 lbs. The fleece of a Rambouillet—owing to a greater weight—will fetch one-third more money than the Naz. Combing wool is the staple sought to be attained. The Rambouillet does not suffer more from fluke and foot rot than other breeds.

some good country about Pen de Reille Lake before arriving at Spokane county. Of all water powers Spokane Falls is the chief; and there is a good country about it. I think Spokane River is the greatest water course of its size I ever saw. Spokane City must be a business place in time.

Saw some good country at Cheney and along down the Columbia river till coming to the Dalles on the river, then rough and rocky; land good where tillable. The Dalles is a business town. Came over the hills to Hay Creek, Crook county; seeing the Deschutes river, and crossing over its rapid tide, with mountains on both sides, is a novelty to the eye. There is not much timber to be seen, only as you look to Mt. Hood, which is towering up towards the skies, covered with snow, and the Cascade range showing the same scenery, timbered with pines at the base and around the sides.

Oregon is a stock and sheep state; land good in the valleys where you find them, and raises good produce, but stock-raising is the principal business in this state, and will be for time to come. Such large sheep Bradford does for the wool clip of the world much what the Bank of England does for the gold diggers' ingots. Bradford throws the wool into a shape in which it passes readily from hand to hand. Hardly any questions are asked. Bradford "tops," Bradford "nails," and Bradford "shoddy" are the manufacture wool. Not very much, in comparison with baled-laden wagons prove.

Bradford does for the wool clip of the world much what the Bank of England does for the gold diggers' ingots. Bradford throws the wool into a shape in which it passes readily from hand to hand. Hardly any questions are asked. Bradford "tops," Bradford "nails," and Bradford "shoddy" are the manufacture wool. Not very much, in comparison with baled-laden wagons prove. Bradford does for the wool clip of the world much what the Bank of England does for the gold diggers' ingots. Bradford throws the wool into a shape in which it passes readily from hand to

## The Horse.

### THE DETROIT TROTTING MEETING.

The Most Successful, Ever Held in the State—Good Weather, Fast Time, and Great Crowds.

The first meeting under the banner of the American Trotting Association has been held in this city, and it was in every way a most unequalled success. The grounds had been thoroughly prepared, the track put in fine shape, and the grand stand and surroundings tastefully decorated. The meeting attracted people from all over the State and Ohio, Illinois, Kentucky and Pennsylvania. The attendance was unexpectedly large, and of the best character. Good order was maintained, and the tricky driver held down to his work in a manner which soon convinced him that the Association meant business. Quite a number of horses lowered their records very materially, as will be seen by the summaries below. Michigan bred horses showed up well, although Belle F. was not in shape to take part in the free-for-all. Sumpter and Loretta F. are trotters, and it was well for Conde that the former was "off" or he would have compelled him to go a couple of seconds faster or lose the 2:35 purse.

One of the events of the meeting was the exhibition of Madame Marantette on her horse Woodlawn, and her race against time with her celebrated running horses, Major Banks and Evergreen, harnessed to a skeleton wagon. She beat her best previous record by 1½ seconds, making the mile in 1:46. It was a most exciting race, and it is safe to say such time was never before made on wheels by any driver.

#### First Day.

The meeting opened with the 3:35 class, in which were 11 entries, comprising the following: Colored Girl, Sumpter, Rosalie Wilkes, Grey Duke, Lynn W., Conde, Scott Newman, Problem, Anna C., Baby Mine and Valky. With so large a field it was difficult to get a good start, but Mr. Campau talked business to the drivers after four false starts had been made, and sent them off on the fifth attempt. Lynn W. was the favorite with many, but the old heads were buying Conde all the same. It rather puzzled the crowd when Sumpter took the heat in 2:35½, Rosalie Wilkes second, Conde fourth, and Lynn W. so far behind that it looked like a shut out. His owner, who had been backing him liberally, then drew him, as he showed lameness.

The second heat was a fight between Rosalie Wilkes, Conde and Sumpter, but the latter was not in shape to stand a hard race, his owner said, and Conde went under the wire first, Sumpter second, and Rosalie Wilkes third. Time, 2:25.

In the third heat Grey Duke was drawn. Conde went on the lead, Sumpter closed up, and Rosalie Wilkes third. The latter closed up and the three came into the stretch neck and neck. Here Sumpter broke up and Conde drew slightly ahead, crossing the score half a length ahead of the mare in 2:25¾.

The fourth heat was rather tame, as Conde, with the lead at the start, was never headed, and won by a full length; Rosalie second and Valky third. Time, 2:24.

**SUMMARY—3:35 TROTTING CLASS—PURSE \$1,500.**

O. A. Hickok's ch & Conde.....	1	1	1
S. A. Browne & Co.'s ch g Sumpter.....	2	4	9
J. B. Shockley's b & Rosalie Wilkes.....	2	3	2
John G. Johnson's m Valky.....	5	4	6
Portsmouth Son's b & Grey Duke.....	7	6	3
H. Simon's ch & Scott Newman.....	10	7	5
A. H. Hossler's ch Baby Mine.....	10	8	7
F. W. Campbell's b & Grey Duke.....	9	9	dr
Lynn Brothers' b Lynn W. ....	11	dr	

**TIME.**

Quarter.	Half.	Quarters.	Mile.
First heat....	36¾	1:07¾	1:42¾
Second heat....	36¾	1:08¾	1:43
Third heat....	36¾	1:09¾	1:43½
Fourth heat....	36¾	1:09¾	1:43

The 2:30 class had seven entries, and while the time was fast, and Tom Rogers pushed the winner somewhat, the race was never in doubt. Patron, the grand young son of Pancost, was a sure winner. He could have knocked two seconds off his best time had he been required to do so. The following horses showed up for the first heat: Deck Wright, Patron, Ploy Boy, Eagle Rird, Naaid Queen, Judge Davis and Tom Rogers. There was some rather tedious scoring, five attempts being made before a start was effected. On the sixth the word was given with Naaid Queen in the lead. Patron went to the front before the quarter pole was reached, and was not headed till he had passed under the wire. The pace was hot, though, and the old campaigner Deck Wright surprised his friends by taking second place, Tom Rogers third. Time, 2:20¾.

For the second heat the horses went off with an excellent start, Patron taking the lead at once, with Tom Rogers and Judge Davis in close company. Rogers showed great speed, and was a good second at the finish. Time, 2:19¾.

The third heat was very exciting. Pat on kept the lead, although Tom Rogers forced him to make a very fast head—2:16. The first half was only fair, 1:00½, a 2:19 gal, but after reaching the half the leaders were seen to increase their speed, and came into the stretch lapped and fairly flying. The last half was trotted squarely in 1:06½, the third quarter in 32½, and the mile in 2:16. The following is the result:

**SUMMARY—2:30 TROTTING CLASS—PURSE \$2,000.**

W. H. McFadden's b & Patron.....	1	1	1
Jacob Knobler's b & Deck Wright.....	2	6	5
John E. Turner's b & Judge Davis.....	4	4	3
L. J. Miller's ch & Ploy Boy.....	5	3	6
M. V. Wagner's b & Naaid Queen.....	6	3	6
A. Kaul's ch & Pilot Boy.....	7	4	

**TIME.**

Quarter.	Half.	Quarters.	Mile.
First heat....	36¾	1:12½	1:48
Second heat....	36¾	1:12	1:48
Third heat....	36¾	1:12	1:48
Fourth heat....	36¾	1:12½	1:48

The 2:20 class was wet, and Tom Rogers pushed the winner somewhat, the race was never headed, and won by a full length; Patron second and Valky third. Time, 2:18.

The third heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

When the third heat was called Wilcox was drawn. Joe L. took it in easy style, with West second and Ida third. Time, 2:21½.

Joe L. was now a strong favorite, he was regarded a sure winner. It was getting dark before a start was made in the fourth heat, and Wilcox closed together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The fourth heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The fifth heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The sixth heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The seventh heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The eighth heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The ninth heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The tenth heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The eleventh heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The twelfth heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The thirteenth heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The fourteenth heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The fifteenth heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The sixteenth heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The seventeenth heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The eighteenth heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The nineteenth heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The twentieth heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The twenty-first heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The twenty-second heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The twenty-third heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The twenty-fourth heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The twenty-fifth heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The twenty-sixth heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The twenty-seventh heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The twenty-eighth heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The twenty-ninth heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The thirtieth heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The thirty-first heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The thirty-second heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The thirty-third heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The thirty-fourth heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The thirty-fifth heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached, when a sharp race down the homestretch ensued which ended in Joe L. taking the heat by a scant head. Time, 2:15.

The thirty-sixth heat was a surprise. Wilcox was leading by a length at the first turn, with Dr. West and Champ close together in second and third place, when the latter broke up again and lost all chance for the heat. Then Joe L., who was fifth, opened out an extra link, passed the leaders one after another till Wilcox was reached

**Horticultural.**

## Experiments with Insecticides.

Prof. Riley, in his Bulletin No. 11 of the Department of Entomology, Washington, remarks that the list of remedies against destructive insects, already very numerous, is increasing every day, and that the reputation of most of them rests merely on hearsay evidence. It has, therefore, become important to submit them to accurate test, and with this view several reliable experimenters have been employed to undertake the work. Among others the bulletin reports the results of more than eighty experiments made by F. M. Webster, of Lafayette, Indiana. In order to bring the results of these trials compactly before the view of such of our readers as are now commencing with insecticides, we give the following statements greatly condensed from those furnished in the bulletin. Among those asserted remedies which have signally failed in every instance, was the use of ice-water for the imported cabbage worm; salt water and salt-peter and water were equally useless. Carbolic acid and water, one part of acid to 100 of water, injured the young leaves, but not the worms. Buckwheat flour, so strongly recommended by some parties, did no harm to insects. Ammonia, three teaspoonfuls to a gallon of water, powdered alum, copperas and water, black pepper, tar water, tomato water, and some other recommended remedies produced no apparent harm to the worms; but pyrethrum powder (kept several months closely corked in a jar), killed at least three-fourths of all to which it was applied. The kerosene emulsion, made of equal parts of kerosene, molasses, and water, diluted with three times its volume, destroyed 80 per cent of all the worms. The emulsion should be weaker for young plants.

The following remedies had no effect on full web worm: Potassium sulphide, copperas water—an ounce to a quart, ammonia water, carbonized water, tomato infusion and carbolite of lime; but copperas water twice as strong as the preceding, produced a satisfactory result.

The Colorado potato-beetle was not injured in several experiments with Wolf's soap, nor with ammonia water; but with carbolite of lime the beetles either deserted the dusted plants or were found dead. Thomas Bennett, of Trenton, N. J., tried a number of remedies, largely of vegetable decoctions, but the remedy which appeared to give the most decided results was a powder made of gas-tar and lime, composed of half an ounce of tar to one pound of lime.

He had never seen potato plants so thickly covered with the beetles as those when he commenced. In three days there were no bugs there, and none were seen until eight days afterwards, when only five were discovered. Another sprinkling of the tar lime repelled them for the season. No Paris green was used. Mr. Bennett recommends this remedy specially to persons who are afraid to use Paris green on potatoes, a "dead shot made of one-pint of gas-tar to one peck of lime (1 to 16)," being an effectual remedy against potato bugs. This powder proves good for every description of plant louse.

The bitter vegetable decoctions do not appear to have given very satisfactory results. They were made of tomato leaves, mandrake, quassia, datura, tansey and allantus. Mr. Bennett tried various remedies to prevent the cut-worm from destroying cabbage plants after being set out. Soft soap and tobacco water were employed as a dip, but proved too strong and injured the plants. The application was modified. Two ounces of tobacco stems were infused in a quart of water, and the stems and lower parts of the leaves immersed. A cut-worm was placed in the ground near each plant, and a week later no plants were cut. The owner of a cabbage field near by, had to keep boys constantly at work searching for and killing the grubs. Other remedies were partially successful. We have never found any means quite so useful in protecting newly-set cabbage plants from the cut-worm as the mechanical appliance of rolling a small piece of burdock leaf around the stem, two inches below ground and one inch above, as they are set out. This work is rapidly performed by one accustomed to it, and there is something in the rough and bitter nature of the leaf that has always proved a perfect protection. There may be other plants which would ans' as well. The great leaf rotts off after the danger has passed. A modification is often recommended in the papers, of using paper instead of the burdock leaf, but it is neither so effectual nor well adapted to the purpose.

## Training Raspberry Vines.

The common method of growing raspberries is by simply planting them in hedge rows, and in letting the canes dispose of themselves as they will. Sometimes, stakes driven at either end of the hedge support a narrow board or pole, which serves to prop up the drooping canes, but often even this limited aid is not given, and the long canes drag upon the ground, to the intense annoyance of the raspberry pickers and to the serious detriment of the yielding quality of the vines. Further, it is almost impossible in this case to keep the vines free from an undergrowth of obnoxious weeds, thistles, quack grass, and the like.

Successful gardeners, however, have begun to adopt of late, the plan of training the vines. This is almost the universal practice in England, where the exposing of as much of the surface of the vine to the sun as possible is quite necessary. The plan usually tried is as follows:

The rows are planted at about six feet apart in the rows, and the plants in the two rows opposite each other. A portion of the canes (not more than three) are selected to form the pillar on the outside of the rows, and cut back to a uniform and desired height. The remaining canes are bent from each side and tied together in the center, thus to form the arch or tunnel as you may call it, and the whole when finished will present a finished and unique appearance.

The advantages of the above mode of culture are apparent, a large and economical surface to sun, light and heat, thereby producing finer fruit and in greater abundance than can be effected by any other system; a better chance for the management of the young canes, as being more easily separated, and for cutting out the old wood, which should be done immediately after the fruiting season is over. The ground may

be cultivated at any time previous to getting the canes again into position.

Raspberries can also be successfully trained on a trellis, and the difference in fruitfulness between carefully trained and regularly pruned raspberry vines and those left to grow at haphazard must be seen to be fully appreciated.

## Mulching in Drought.

M. Milton, a market gardener of wide experience, says in the *Country Gentleman*:

Seldom a summer season passes without a drought. It may be of only a few weeks' duration, or as sometimes is the case, it may extend through the months of July, August and September. Trees and shrubs planted in the spring are at this season passing a critical period; the roots and shoots have got well started, but are in a succulent and tender condition, and are easily affected by any change arising from a lack of moisture. The leaves are in a condition to rapidly evaporate moisture, the continual hot and dry atmosphere greatly increasing this evaporation. The rootlets are taxed to their utmost to maintain this rapid passing off of the moisture, and unless there is a sufficient supply at hand, they soon give out, and the organs of the tree or shrub become so weakened that it has to succumb for lack of nourishment. The surface of the soil becomes very hot if fully exposed to the sun, and creates a rapid evaporation of the moisture it contains.

It is imperatively necessary, therefore, to help check this rapid evaporation by mulching with some material of sufficient looseness to admit of water and air, but still sufficiently dense to prevent the sun's rays from drying and heating the soil. Before applying the mulch, it is advisable to stir the surface of the soil to admit the rains freely. On the top of this then apply the mulch, spreading it out beyond the area occupied by the roots, for unless carried far enough from the stem of the tree to cover the rootlets forming at the ends of the old roots, it does not do very much good. We often see trees having a thick covering of mulch placed close around the stem of the tree, doing little, if any good, as the roots require to be benefited have extended several feet beyond where the mulch is spread.

Mulching may not only be a check upon the evaporation of moisture from the soil, but also an aid in supplying food for newly set trees by using some material containing a supply of plant food. Nothing is much better for this purpose than the rough litter from the manure pile. It contains considerable of the elements which are necessary to build up plant life, and every shower carries into the soil these elements in a condition suitable at once for the plant's requirements. Spent hops, as obtained from the breweries, make an excellent mulch. I have used it largely for years, for this purpose. I once mulched a patch of late cabbage with about three inches of hops, and although a well known cultivator has found the roots of a twelve year old peach tree growing in rich soil fifty feet from the tree, we are well aware that fruit trees, when planted in rich soil and left to their own resources, will quickly push roots of a very strong nature many feet from the stem; but, as a rule, such roots are utterly destitute of fibre, which is far from conducive to successful fruit culture. We have heard of a large peach orchard being planted in America on very rich deep soil; notwithstanding this, it was frequently top-dressed with farmyard manure, consequently the trees grew well, and made strong, sappy shoots, which were unable to withstand the rigors of an American winter, even if the tree had been hardy enough; such growth could never produce profitable fruit—whereas, if planted on a thin and not too rich soil, and the roots kept within bounds, they would no doubt have been a complete success.

Some of the best fruit producing peach trees we ever saw were growing in concrete borders, not more than four feet wide, and in a depth of two feet of soil. Therefore, we cannot see why good fruit cannot be grown equally as well when the roots are kept within bounds as when they are allowed to ramble "far from home." It is a certainty that the cost of manuring and cultivating the whole land, when the roots are kept within bounds as when they are allowed to ramble "far from home," is the same as when done with a horse cultivator, the same as corn, and all the suckers kept down, with the exception of four or five new canes. When they got up about two feet and a half the new canes should be pinched back, which would make them stocky and branchy.

Mr. Morton, Wingham, said he cultivated the raspberry as an amateur or garden grower. He planted them in rows, and hills in the rows, because he found it desirable to tie the canes to stakes in winter on account of the snow, which was very apt to break them down. Ordinary red he planted about six feet apart, and Shaffer's Colossal, which was his preference for home use, about seven feet apart, it being a taller growing variety and requiring more room. He regarded as weeds all shoots not growing within a radius of six inches from the centre of the hill. He kept the ground perfectly clean and friable to within a distance of about two inches with a wheel hoe, and made use of ashes and salt as manure. He was afraid, however, that the poor show of fruit he had this season was owing to a heavy coat of ashes he had put on. He did not think raspberries required much manure when once planted if the soil was as good when it ought to be.

first accomplished in America by Mr. Burnett in Wayne County, New York, in the year 1816, who collected on the banks of a little stream sufficient wild plants to produce some 40 pounds of the oil. In the year 1835, the industry was established in Michigan in St. Joseph county, on White Pigeon Prairie, about two miles north of a village of that name, a distillery being erected the following year. Up to this time and for ten years later, the distilling apparatus was very crude, being the same as had been used in England, but with slight modification, consisting of a copper kettle in which the plants were placed, immersed in water in which direct heat was applied by a furnace underneath, a condensing room of the currant worm commerce. By a little watching and care this enemy can be exterminated. He would in no case use Paris green.

In the remainder of the patch he would plant potatoes and strawberries, alternately. He invariably plants strawberries in the spring, and would advise the planting of a row of Wilson, three rows of Crescent and one of Sharpless, or other good stamine variety, to fertilize the Crescent. The leaves are enough for an ordinary grower. He plants in rows several feet apart, and cultivates with a horse. In no case plant the Manchester, though it is a great bearer. It is almost sure to rust, and will infect the other varieties.

## The Length of Roots.

While many of our leading fruit-growers are manuring their trees, within a few feet of the centre stem only, others are endeavoring to prove that an orchard, to obtain full benefit from manuring, mulching, or cultivation, must be treated broadcast, that is, in plain speaking, the whole of the ground must be manured and cultivated. In some points we agree with them, in others we do not; many have the idea that the roots of trees extend no farther from the centre of the branches are, but such ideas are, of course, chimerical. Others have taken the trouble to show us that the roots generally extend much farther than the entire height of the trees, and endeavor to impress upon us the necessity of manuring the whole land surrounding the fruit trees, if we wish to become successful growers. Apple trees, planted twenty feet apart, have been found to interlace roots eight years after planting. Again, a well known cultivator has found the roots of a twelve year old peach tree growing in rich soil fifty feet from the tree.

Fritzsche's test for oil of peppermint: Mix thoroughly about one pint of snow or finely crushed ice, with a like quantity of finely powdered salt and put this into any convenient quart, holding open container, into this place a cork test tube, not quite filled with oil. After 10 or 15 minutes the oil, if pure, will have become cloudy, translucent, thick or of a jelly-like consistency. Then add four or five small crystals of pure menthol, re-cork and shake thoroughly. Replace the tube into the freezing mixture and after a short time, the pure oil will present a solid mass of crystals. If the oil remains limp, or partially so, it has either been adulterated or had its menthol extracted and should be unhesitatingly rejected.—J. P. Canby.

## Raspberries for Market and Home Use.

At a late meeting of the Ontario Fruit Growers' Association Mr. A. M. Smith, of St. Catharines, said there was a difference in cultivation for market and home purposes. For market they should be planted in rows about six feet apart and three feet apart in the row, so as to have plenty of room to cultivate them. The cultivating should be done with a horse cultivator, the same as corn, and all the suckers kept down, with the exception of four or five new canes. When they got up about two feet and a half the new canes should be pinched back, which would make them stocky and branchy.

Mr. Morton, Wingham, said he cultivated the raspberry as an amateur or garden grower. He planted them in rows, and hills in the rows, because he found it desirable to tie the canes to stakes in winter on account of the snow, which was very apt to break them down. Ordinary red he planted about six feet apart, and Shaffer's Colossal, which was his preference for home use, about seven feet apart, it being a taller growing variety and requiring more room. He regarded as weeds all shoots not growing within a radius of six inches from the centre of the hill. He kept the ground perfectly clean and friable to within a distance of about two inches with a wheel hoe, and made use of ashes and salt as manure. He was afraid, however, that the poor show of fruit he had this season was owing to a heavy coat of ashes he had put on. He did not think raspberries required much manure when once planted if the soil was as good when it ought to be.

## FLORICULTURAL.

Small Fuchsias should have a shady place, and while it does not relish wet feet likes plenty of water. If it is allowed to wilt it is very apt to drop its leaves.

The entire stock of the new rose, the Puritan, has been bought by a firm of florists at Pittsburgh for \$18,000. It is a hybrid perpetual, large, white, beautiful in bud or blossom, and said to be a vigorous grower, free from mildew, and a continuous bloomer.

CHINESE primroses for midwinter bloom ought to be started now. Sow the seed in a large pot, on fine light soil, and do not cover with soil, but with fine moss. Sprinkle this with water carefully and cover with a pane of glass. Keep in a shady place. If necessary to water the seed sprinkle the moss. When the plants are up transplant into small pots.

The Horticultural Times says: "If you plant a brilliant bed, with but little trouble and expense, you should fill it with verbenas. We have no more profuse bloomer. It begins when it is a wee bit of a thing, hardly worth calling a plant, and as it enlarges, gives more and more flowers, until by July, each plant, if properly trained, will cover two or three feet of ground, and be a perfect mass of flowers. The most showy sorts are the scarlets, but the most pleasing are the rose-colored ones, with flowers of the softest and most delicate shades imaginable. A few white ones should be used to heighten the effect of the colored varieties. There are some fine blues, but they never should be used with the scarlets, crimson, or pinks, as they are of that peculiar shade of blue which will not harmonize with either of those colors. They can be worked in quite effectively,

however, with the white kinds. To train the verbenas properly is a very easy thing to do, but it does not often get done. It should have each branch pegged to the ground in such a manner as to make the plant cover the soil with a carpet of foliage, which becomes a background against which the flowers can display themselves to admirable advantage. The flowers should be cut out as soon as they begin to fade. If they are allowed to produce seed, you will soon find that your supply of blossoms is giving out. As the branches root at each joint, when the plant touches the ground, it is a very easy matter to raise young plants enough from one old one, to fill a large bed. I would not advise anyone to attempt to raise plants from seed. But few of the seeds germinate under ordinary conditions, and seedlings are generally inferior to all the plants propagated by the florists from choice sorts."

A successful grower of the heliotrope gives his method as follows: "In starting seeds or slips I use a box ten inches long, six inches wide and six inches deep, with a sliding glass cover, easily admitting air when necessary. After repeated experiments as to earth best suited to their wants, I shall毫不hesitatingly pronounce in favor of that taken from an old pile of wood and thoroughly sifted, as it never bakes, a thing to which the heliotrope will never submit cheerfully. The plant likes moist heat at the roots and fibres; this is supplied by filling the saucers of the flower-pots with hot water. If any lover of this delightful plant will secure perfect drainage, and then remember that it is a very thirsty plant, he can scarcely fail in its culture. Then in removing plants to the garden, which I always do in summer, I am careful to have a generous supply of the wood-pile dirt in the cavity prepared for the reception of the heliotrope. I had one in the garden last summer fully three feet high, loaded with delicious bloom, and admired by all who saw it."

The sweet-scented verbena (*Aloysia Citriodora*) is a well-known and general favorite among window gardeners—holding this position on account of the sweet perfume it has. Being a deciduous shrub it should receive somewhat similar treatment to the fuchsias. Stored away for the winter, giving no water from the end of October until March, when the plants should be pruned in hand, and re-potted in fibrous loam leaf mould, and sand; water at first but sparingly, until the plant is growing freely. In order to make the plant bushy and dwarf, each shoot should be pinched when about four inches long; this will induce them to throw out two more, which should also be stopped in the same manner, and so on, according as the plant grows. By doing this you will always keep your plants neat and tidy. Towards the end of September the leaves begin to drop; then it is advisable to place the plants out of doors for a few weeks, in order to get well ripened before being stored away for the winter. Cuttings of well-ripened wood, from the prunings in March, will root freely if inserted in sandy soil; or young shoots taken in July, and put in sandy soil under a bell glass, will strike root.

BEEES will swarm any time when there is a continuous flow of nectar, and a bee-keeper should always have empty hives in readiness to receive them. Italian bees swarm frequently before building queen-cells, or apparently making any previous preparation for the event. The exact time when a swarm is going to emerge, cannot be determined beforehand with any degree of certainty. If during the swarming season few bees leave the hive while the occupants of adjacent ones are busily engaged in gathering honey, a swarm may reasonably be expected. During sultry weather a swarm may issue as early as seven in the morning, but the greater part of them come forth ten in the morning to three in the afternoon. Occasionally an after-swarm issue as late as five in the evening, and an old queen is seldom guilty of such indecency.

## Horticultural Notes.

A dilute kerosene emulsion is reported to be a better remedy against aphides than to bacon fat. The Marboro raspberry is said to be fast driving out all other varieties in the fruit-producing regions of New York. It sells at from one and a half to two cents per quart more than other sorts on account of its size and flavor.

The refusal of fruit-pickers to work on the Fourth of July caused the loss of about 16,000 quarts of raspberries in the southern part of Ulster County, N. Y., alone. The owners of these we can see why good fruit cannot be grown equally as well when the roots are kept within bounds as when they are allowed to ramble "far from home." It is a certainty that the cost of manuring and cultivating the whole land, when the roots are kept within bounds as when they are allowed to ramble "far from home," is the same as when done with a horse cultivator, the same as corn, and all the suckers kept down, with the exception of four or five new canes. When they got up about two feet and a half the new canes should be pinched back, which would make them stocky and branchy.

Mr. Morton, Wingham, said he cultivated the raspberry as an amateur or garden grower. He planted them in rows, and hills in the rows, because he found it desirable to tie the canes to stakes in winter on account of the snow, which was very apt to break them down. Ordinary red he planted about six feet apart, and Shaffer's Colossal, which was his preference for home use, about seven feet apart, it being a taller growing variety and requiring more room. He regarded as weeds all shoots not growing within a radius of six inches from the centre of the hill. He kept the ground perfectly clean and friable to within a distance of about two inches with a wheel hoe, and made use of ashes and salt as manure. He was afraid, however, that the poor show of fruit he had this season was owing to a heavy coat of ashes he had put on. He did not think raspberries required much manure when once planted if the soil was as good when it ought to be.

## Diseases of Plants.

The editor of the Canadian Bee Journal has made certain observations on the actions of bees which have swarmed and betaken themselves to flight. He says the person who desires to find where they should keep in front of them to see whether they seek the woods or pass over, and adds:

"You can easily tell whether it be the intention of a swarm to go through or stop when they come to a bit of timber land. If they intend going through or over the bush they will, when they get within a few rods of it, roll over and over, rising all the time until they are as high as the tops of the trees, drawing themselves into a much smaller compass as they perform this rolling, rising motion. If they intend clustering in the woods you will observe them flying backwards and forwards parallel to the bush several times, gradually entering the woods. By carefully watching their motions you can decide what they intend doing."

## The Rose Beauty.

The Rose Beauty, an apple originating in Lawrence County, Ohio, and now being extensively planted in Kentucky, Tennessee, Kansas and Missouri, is said to be very like the Ben Davis, in being very beautiful in appearance but not coming up to expectations in the matter of quality and keeping. It sells well, however, and is therefore being largely planted.

## Bull's Sarsaparilla.

Variable appetite; faint, gnawing, toothache, bad breath, taste in mouth for spirituous liquors, and the like.

*Dyspepsia.* Variable appetite; faint, gnawing, toothache, bad breath, taste in mouth for spirituous liquors, and the like.

*Rheumatism.* Disease caused by excess of the lactic acid in the blood. Where there is perfect filtration of the blood there can be no rheumatism. *BULL'S SARSAPARILLA* will remove the poison, suspend the acids and relieve the pains.

*Scrofula.* Is caused by a disease of the blood, usually affecting the glands, enlarged joints, abscesses, sore eyes, blisters, eruptions on the face or neck. *BULL'S SARSAPARILLA*, by purifying the blood, forces the impurities from the system.

*Kidneys.* Through the kidneys flow the waste fluid containing poisonous matter. If the kidneys do not properly filter this matter is retained and the body becomes weak and feeble. *BULL'S SARSAPARILLA* acts as a diuretic, causing the kidneys to resume their natural functions.

*The Liver.* Bile poison of its functions, causing jaundice, sallow complexion, weak eyes, bilious diarrhoea, a languid, weary feeling. These are removed at once by *BULL'S SARSAPARILLA*.

FOR SALE BY ALL DRUGGISTS.



## THE MICHIGAN FARMER.

This present season seems to have been a favorable one for commercial fertilizers, as we have had over a dozen farmers tell us that fields on which they had used superphosphates had given them a good yield of wheat, while other parts of the same field, or adjacent fields upon which it had not been used, produced very light crops. We have heard from Shilasawee, Genesee, Oakland and Wayne Counties, and the reports are all of the same tenor.

Mr. FRANK JOCELYN, of Henderson, Allegan County, sends the following: "I wrote to you to know that I received my new machine all right two weeks ago. I have given it a trial and am well satisfied with it."

Oleomargarine in England.

Mr. Pearson, manager of the butter department of the Wholesale Co-operative Society of Manchester, was examined recently at considerable length before a select committee of the House of Commons, on the question of butter substitutes, the volume of their sale, etc., as compared to that of the genuine article. During the course of his testimony Mr. Pearson stated the following interesting facts: That the Cooperative Wholesale Society, of which he was president, was a large association composed of small co-operative societies as shareholders; in these retail societies there are over 600,000 members, consisting of the working and artisan classes. His firm handles for the purchase of butter in Denmark, Sweden, Hamburg, America, and even in places in Ireland. They compound goods by their own steamers from Hamburg, Rouen and Calais, and were, he said, the largest purchasers of butter in the world. The butters mainly dealt in are the best qualities of Danish, Swedish and Irish, with a little French and Norwegian. Their sales of Danish butter lately amounted to 118 tons (264,329 lbs), and Irish butter \$2 tons (183,050 lbs) weekly.

Butterine sold only about two tons (400 lbs) weekly, or one per cent of their sales. Mr. John Giedhill, of Newbury, the American representative of the co-operative society of Manchester, gave a similar report to the New York Dairy Commission, about one year in which he testified that the cooperatives of Great Britain have no objection to manufacture of butterine or oleomargarine, provided they are sold as such and may be enforced to punish dishonest people who sell composition for genuine butter.

## NEW ADVERTISEMENTS.

Shorthorn Cattle  
AT AUCTION.

## ENTIRE HERD TO BE SOLD!

Entire herd to close out my herd of Shorthorn and from the business of breeding will offer the entire herd at auction on

TUESDAY, AUGUST 31st, 1887,

at One O'clock, P. M.

Entire to be offered const of seventeen bulls, of all ages, and eight bulls, including now heading the herd. Catalogues can

be had on application.

Terms on credit on approved notes.

Same time I shall offer my stock farm on reasonable terms.

D. M. UHL, Ypsilanti, Mich.

OUTDOWNS!  
AT YPSILANTI, MICH.

Only pure-bred and registered flock in the state being direct from Lord Walsingham and the Wales flock. We are assured by both a number of evidence that our flock is possessed of the most delicate and finely flavored of all known breeds, and are and have been the first and only ones to produce the first and most uniform breeders of mutton and will produce a greater amount of meat to a given amount of feed than any sheep in the country, averaging 100 lbs per head of white wool each year. A part of the flock is for sale at prices to guarantee practical value.

W. W. GREENE:—Enclose a few words of commendation on certain points of merit in your flock to my foreman, in which I concur. I truly hope you may be able to get it before the farmers so that all of my merits will be appreciated.

THOMAS J. CHASE'S  
NEW COMPLETE RECEIPT BOOK  
AND HOUSEHOLD PHYSICIAN.

The "Memorial Edition" contains over 800 pages. It is the LAST and CROWNING WORK of the Old Doctor's Life. The demand for this book is simply enormous.

AGENTS WANTED.

F. B. DICKERSON & CO.,  
Detroit, Mich.

FARM WANTED.

We have a cash customer for a farm within six miles from Detroit. Please send details and lower price.

NATIONAL EXCHANGE,  
88 Griswold St., Detroit.

Patent Lever-Tread Horse-Powers  
With Patent Speed Regulator.

Patent Improved Threshing Machine, Pedal Cutters, Corn Shellers, Wood Saws, Field Extinguishers, success with many improvements. Catalogues Free.

HEESENER & JELSBOWSKI

Merrill & Fifield, Bay City, Mich.

IMPORTERS AND BREEDERS OF

HEREFORD CATTLE!

The Michigan Herd of Prize Winners.

At the head stands Clarence Grove (9709),

an import of the famous herd of Spain (9000),

brought to the U. S. by Tom Wilton (9323),

a son of the great Lord Wilton and full brother

to Mr. Bertram's Sir Wilfred. Such cows as

Lily, 2d, Fair Lady, 3d, Queen of Spain, 4d,

Charlotte, 5d, Greenhorn 6th, by Prince

Barcelona Queen by Horace 6th, three grand

heifers by Hesiod (9451), and others of equal merit,

compose the breed herd.

Choice Young Stock For Sale at Reasonable Prices. Write for Particulars.

M. L. RICE, Utica, Mich.

BREEDER OF

White Plymouth Rocks

Winners of all principal premiums at Grand Rap'de.

Also prizes in winning Land and Water fairs, and

from time to time Mammoth Bronze Turkeys \$3 per lb. Pekin

Duck eggs extra large stock \$1 per lb. Ferrets, Rabbits,

and Fancy Pigeons, etc. Send for handbooks illustrated

and published; it gives full descriptions of matings, prices of eggs, etc.

Summary

of Cutters, Corn Shellers, Wood Saws, Field

Extinguishers, success with many im-

provements. Catalogues Free.

J. E. HEESNER & J. JELSBOWSKI

1818

THE MICHIGAN FARMER.

STATE AND DISTRICT FAIRS.

NAME OF SOCIETY.

HELD AT

DATE

SECRETARY.

POST-OFFICE.

Michigan State Agricultural Society

Central Mich. Ag'l Society

Northwestern Ag'l Society

Alabama State Ag'l Society

Indiana State Society

Illinois State Society

Texas State Fair and Exposition

Virginia State Fair

Wisconsin State Society

Montana Ag'l Society

New York State Society

Ohio State Society

Pennsylvania State Society

Arkansas State Society

Michigan State Fair

Michigan State Fair and Exposition

Michigan State Fair

</div

## Poetry.

## THE TWO LIGHTS.

"When I'm a man" is the poetry of youth.  
When I was young" is the poetry of old age."  
"When I'm a man," the stripling cries,  
And strives the coming years to scan,  
"Ah, then I shall be strong and wise,  
When I'm a man!"

"When I was young," the old man sighs,  
"Bravely the lark and linnet sing  
Their carol under sunny skies,  
When I was young!"

"When I'm a man I shall be free  
To guard the right, the truth uphold."  
"When I was young I bent no knee  
To power or gold!"

"Then shall I satisfy my soul  
With yonder prize when I'm a man."  
"Too late I found how vain the goal  
To which I ran."

"When I'm a man these idle toys  
Aside forever shall be flung."  
"There was no poison in my joys  
When I was young."

The boy's bright dream is all before,  
The man's romance lies far behind,  
Had we the present and no more,  
Fate were unknd.

But, brother, tolling in the night,  
Still count yourself not all unblest  
If in the east there gleams a light,  
Or in the west.

## THE LETTER.

So I have sealed you my letter; my letter:  
You are going where I would be;  
If you chose your fate, could you wish a better?

May, if you deem so, wait and see!

Far lies your way through the sunset burning,  
Over the breadth of the shivering land.

Till you reach the home of my spirit's yearning  
And rest at length in a little hand.

And when you find she is fair, my letter,  
And when you thrill at her dainty touch,  
With all the strength of your prayers beset her  
The lovely lady I love so much!

Patiently sue to her, speed my crown I seek;  
Tell her your scorn is my life's undoing;  
Show her the thoughts I dare not speak.

## Miscellaneous.

## Catching Tigers.

A tiger at close quarters on a steamer's deck must be even more unpleasant to encounter than one in his native jungle. The author of "Three Years of a Wanderer's Life" says that he once saw three young tigers larger than Newfoundland dogs loose on the deck of a British India steamer, crowded with several hundred Mecca pilgrims. The cage in which they were confined was large, and barred on each side with a partition running along its middle, which had a drop-door.

The man who had charge of the animals would drive them over to one side of the cage, close the partition, and clean out the other side at his leisure; then barring up the cage side, he would open the partition and drive the tigers back, while he went through the same performance on the other side.

One morning he neglected to put up the bars on the side he had finished, and so drove the tigers out of the opposite side of the open cage.

The animals, on obtaining their liberty, took different directions, and crouching in the nearest corners, lay snarling and exposing their teeth, showing unmistakable signs of nothing but fear—a most dangerous fear.

There was little confusion. The side of the deck was simply deserted, and the crowd gazed in interest, at a respectful distance.

Mr. Fleuse, the third officer, myself and the keeper each placed ourselves before a tiger, barring their exit, should they attempt to move away.

Fleuse inquired if the tigers had been fed that day. They had not; they had always been fed on living fowls. Fleuse called for three chickens from the hen-coop. Taking these, he threw one in the face of each tiger.

The chickens seemed motionless, glued to the spot, so instantaneous was the fixing of teeth and claws. Fleuse then went deliberately up to a tiger, coolly took the loose skin of the back of the neck with one hand and the root of the tail with the other, and putting out his full strength, dragged the heavy brute along the deck to the cage and forced it through the open bars.

The chicken diversion acted perfectly. The brute had no object but that of retaining its prey. It growled fearfully; its eyes blazed; its teeth crushed through the chicken; its unsheathed claws clasped and pierced the quivering body. Red hot irons would hardly have made it loosen its grip of death.

Then the keeper and I helped Fleuse in carrying the other two tigers into the cage.—"Youth's Companion."

## Enveloped by a Blanket Fish.

A few evenings since Mr. Jefferson, who keeps the saloon at Glenbrook, was out bathing in the lake, when something suddenly wrapped about him like a wet blanket. He was close to shore and got them pretty lively. When he climbed up the wharf the blanket, as it appeared to be, was all wrapped about him in a queer way. He rushed into the rear of the saloon where there was a light, and was horrified to discover that the thing which was wrapped around him was alive. It held on with a terrible suction, and required several men to get it off. A scientist who was stopping at the hotel pronounced it an *elatops cyathinus*, or what is vulgar known as the blanket fish. It frequents the waters of the polar seas, and is only occasionally found in fresh water, except deep, cold lakes, and generally stays near the bottom. It is sometimes found in the Pacific Ocean as low as the thirty-fifth parallel. It wraps around its victim, and by impeding the motion of its limbs causes it to drown.

It is dark brown in color, with black specks, and weighs about twenty-five pounds. When stretched out on the wharf it was about six feet long by five broad, and not over an inch thick. It was an object of curiosity all day. Mr. Emery, the stage driver, says he saw Jefferson when he came out of the water, and thought he was wrapped up in a blanket. This is the first ever seen in this section of the world.—"Garrison Appeal."

## DORCAS CALEDON.

## THE HEIRESS OF CALEDON HEIGHTS.

## An Autobiography.

## BY FLORENCE E. DIAMOND.

[Copyrighted 1887.]

CHAPTER I.  
INTRODUCTORY.

**D**EAR READER, this short and simple story, which I am about to relate, is not a wild and harrowing tale, nor escapes from threat-  
ing dangers, or dark deeds or wondrous romances, but only the truthful history of a life, checkered as are most lives, and one who was an orphan from her birth and almost as alien from her kindred. To its brief record I crave your attention.

My rightful name was Dorcas Caledon, but until I had attained womanhood I was known as Dorcas Lynn. My first name, however, was my only rightful legacy, for I was a foundling, picked up on the steps of the B—founding asylum one bitter winter night, evidently deserted by those who should have cared for me. The matron Mrs. Lynn, of course took me in and kindly cared for me; perhaps the fact that she had a few children of her own, and a son, who often made her more tender to the little waif than to her own.

As near as she could judge from my size and appearance I must have been six months old when I was left at the asylum. The person or persons who had placed me there had evidently not intended that I should perish from the cold, for I was warmly wrapped and a goodly supply of clothing was also in the basket beside me. But no clow was left to tell from whence I came; only the simple name Dorcas upon various pieces of linen told that I had evidently been the recipient of a mother's care at some time.

The matron waited until we were all quiet; then she spoke in her gentle, even tones:

"My dear children, these two ladies wish to adopt, as their own, one of you little girls. I am glad to say I can surely recommend each and all of you as obedient and trusty children, and I hope, if this kind lady should conclude to take one of you, will try and see the benefit of the change, and act accordingly."

This was a set speech of madam's; we had paid little attention to it, except to stare more fixedly at the floor.

The elder lady arose at this and came slowly down the long line, scrutinizing sharply each face before her, not as if making a choice, but rather as if searching for some resemblance. Finally she reached the matron, at whose side I stood, or rather hid, for I felt a fear of the well-dressed woman. It was only when received by the kind hands of the matron and the teachers and listening to her soft, sooth-saying voice that I again realized that I had a friend in the world, since kind Mrs. Lynn had died.

Oh! how can we homeless ones, forsaken by those whose duty it is to care for us, fully testify to our gratitude for the kind services rendered us by these sisters of mercy. Such a haven of refuge to the little waifs whom poverty and brutality have made dependent!

"Hold up your head," she commanded, in her brisk way. I obeyed her. She took one look in my eyes; a gleam of intelligence flashed in her face. "The same," she muttered, "as mine." Now, what is your name, little girl?" she inquired.

"Dorcas Lynn," I answered, softly.

"Dorcas; yes, yes." Then, turning to the matron, she inquired very particularly in regard to my past history, from whence I came, etc., etc., all of which madam answered to the best of her ability, giving her the brief history with which the reader is already familiar.

Some of the children are quiet, soft-spoken, with bright faces and dainty ways, that would do credit to any of the petted darlings who parade Fifth Avenue in silks and ermine, and, no doubt, are of good birth. But others are bold, noisy, even coquettish, whose low foreheads and wide mouths, together with rough, unpolished manner, show the plebian blood of the lower classes. Others are wan, shallow children, meretricious, no doubt, the traits of a weak, silly mother, or the dissipated tastes of the father. And so on; all classes, grades and kinds mixed together in one promiscuous heap, yet presenting, under the watchful, exacting eye of the manager, a very respectable whole.

The reader will no doubt be curious to know to which of these classes I belonged.

"I am a twin," she said, smiling slightly, and for the explanation, almost eagerly, I thought: "She'll do; I'll take her."

Then, turning to her companion, she inquired: "Have you any thing to say, Lena?"

The other lady had remained seated, apparently quite indifferent as to what her companion was doing, but at her question she arose and came slowly down the room toward I stood. She gave me one look—a look so full of hatred and malice, that it seemed to scorch my very soul; but her tones were smooth and soft as she announced:

"Gracious me!" she exclaimed, rather sharply.

"Dorcas; yes, yes." Then, turning to the matron, she inquired very particularly in regard to my past history, from whence I came, etc., etc., all of which madam answered to the best of her ability, giving her the brief history with which the reader is already familiar.

This explanation seemed to entirely satisfy Miss. Lynn, and she said, "I am a twin," was her excuse, almost silent, and, I thought, "she'll do; I'll take her."

Then, turning to her companion, she inquired: "Have you any thing to say, Lena?"

The other lady had remained seated, apparently quite indifferent as to what her companion was doing, but at her question she arose and came slowly down the room toward I stood. She gave me one look—a look so full of hatred and malice, that it seemed to scorch my very soul; but her tones were smooth and soft as she announced:

"Gracious me!" she exclaimed, rather sharply.

"Dorcas; yes, yes." Then, turning to the matron, she inquired very particularly in regard to my past history, from whence I came, etc., etc., all of which madam answered to the best of her ability, giving her the brief history with which the reader is already familiar.

This explanation seemed to entirely satisfy Miss. Lynn, and she said, "I am a twin," was her excuse, almost silent, and, I thought, "she'll do; I'll take her."

Then, turning to her companion, she inquired: "Have you any thing to say, Lena?"

The other lady had remained seated, apparently quite indifferent as to what her companion was doing, but at her question she arose and came slowly down the room toward I stood. She gave me one look—a look so full of hatred and malice, that it seemed to scorch my very soul; but her tones were smooth and soft as she announced:

"Gracious me!" she exclaimed, rather sharply.

"Dorcas; yes, yes." Then, turning to the matron, she inquired very particularly in regard to my past history, from whence I came, etc., etc., all of which madam answered to the best of her ability, giving her the brief history with which the reader is already familiar.

This explanation seemed to entirely satisfy Miss. Lynn, and she said, "I am a twin," was her excuse, almost silent, and, I thought, "she'll do; I'll take her."

Then, turning to her companion, she inquired: "Have you any thing to say, Lena?"

The other lady had remained seated, apparently quite indifferent as to what her companion was doing, but at her question she arose and came slowly down the room toward I stood. She gave me one look—a look so full of hatred and malice, that it seemed to scorch my very soul; but her tones were smooth and soft as she announced:

"Gracious me!" she exclaimed, rather sharply.

"Dorcas; yes, yes." Then, turning to the matron, she inquired very particularly in regard to my past history, from whence I came, etc., etc., all of which madam answered to the best of her ability, giving her the brief history with which the reader is already familiar.

This explanation seemed to entirely satisfy Miss. Lynn, and she said, "I am a twin," was her excuse, almost silent, and, I thought, "she'll do; I'll take her."

Then, turning to her companion, she inquired: "Have you any thing to say, Lena?"

The other lady had remained seated, apparently quite indifferent as to what her companion was doing, but at her question she arose and came slowly down the room toward I stood. She gave me one look—a look so full of hatred and malice, that it seemed to scorch my very soul; but her tones were smooth and soft as she announced:

"Gracious me!" she exclaimed, rather sharply.

"Dorcas; yes, yes." Then, turning to the matron, she inquired very particularly in regard to my past history, from whence I came, etc., etc., all of which madam answered to the best of her ability, giving her the brief history with which the reader is already familiar.

This explanation seemed to entirely satisfy Miss. Lynn, and she said, "I am a twin," was her excuse, almost silent, and, I thought, "she'll do; I'll take her."

Then, turning to her companion, she inquired: "Have you any thing to say, Lena?"

The other lady had remained seated, apparently quite indifferent as to what her companion was doing, but at her question she arose and came slowly down the room toward I stood. She gave me one look—a look so full of hatred and malice, that it seemed to scorch my very soul; but her tones were smooth and soft as she announced:

"Gracious me!" she exclaimed, rather sharply.

"Dorcas; yes, yes." Then, turning to the matron, she inquired very particularly in regard to my past history, from whence I came, etc., etc., all of which madam answered to the best of her ability, giving her the brief history with which the reader is already familiar.

This explanation seemed to entirely satisfy Miss. Lynn, and she said, "I am a twin," was her excuse, almost silent, and, I thought, "she'll do; I'll take her."

Then, turning to her companion, she inquired: "Have you any thing to say, Lena?"

The other lady had remained seated, apparently quite indifferent as to what her companion was doing, but at her question she arose and came slowly down the room toward I stood. She gave me one look—a look so full of hatred and malice, that it seemed to scorch my very soul; but her tones were smooth and soft as she announced:

"Gracious me!" she exclaimed, rather sharply.

"Dorcas; yes, yes." Then, turning to the matron, she inquired very particularly in regard to my past history, from whence I came, etc., etc., all of which madam answered to the best of her ability, giving her the brief history with which the reader is already familiar.

This explanation seemed to entirely satisfy Miss. Lynn, and she said, "I am a twin," was her excuse, almost silent, and, I thought, "she'll do; I'll take her."

Then, turning to her companion, she inquired: "Have you any thing to say, Lena?"

The other lady had remained seated, apparently quite indifferent as to what her companion was doing, but at her question she arose and came slowly down the room toward I stood. She gave me one look—a look so full of hatred and malice, that it seemed to scorch my very soul; but her tones were smooth and soft as she announced:

"Gracious me!" she exclaimed, rather sharply.

"Dorcas; yes, yes." Then, turning to the matron, she inquired very particularly in regard to my past history, from whence I came, etc., etc., all of which madam answered to the best of her ability, giving her the brief history with which the reader is already familiar.

This explanation seemed to entirely satisfy Miss. Lynn, and she said, "I am a twin," was her excuse, almost silent, and, I thought, "she'll do; I'll take her."

Then, turning to her companion, she inquired: "Have you any thing to say, Lena?"

The other lady had remained seated, apparently quite indifferent as to what her companion was doing, but at her question she arose and came slowly down the room toward I stood. She gave me one look—a look so full of hatred and malice, that it seemed to scorch my very soul; but her tones were smooth and soft as she announced:

"Gracious me!" she exclaimed, rather sharply.

"Dorcas; yes, yes." Then, turning to the matron, she inquired very particularly in regard to my past history, from whence I came, etc., etc., all of which madam answered to the best of her ability, giving her the brief history with which the reader is already familiar.

This explanation seemed to entirely satisfy Miss. Lynn, and she said, "I am a twin," was her excuse, almost silent, and, I thought, "she'll do; I'll take her."

Then, turning to her companion, she inquired: "Have you any thing to say, Lena?"

The other lady had remained seated, apparently quite indifferent as to what her companion was doing, but at her question she arose and came slowly down the room toward I stood. She gave me one look—a look so full of hatred and malice, that it seemed to scorch my very soul; but her tones were smooth and soft as she announced:

"Gracious me!" she exclaimed, rather sharply.

"Dorcas; yes, yes." Then, turning to the matron, she inquired very particularly in regard to my past history, from whence I came, etc., etc., all of which madam answered to the best of her ability, giving her the brief history with which the reader is already familiar.

This explanation seemed to entirely satisfy Miss. Lynn, and she said, "I am a twin,"

feeling much  
more  
of the form-  
er, and  
in the excep-  
tion  
in his artless  
recognition my

much the same  
that Bertie  
had done for a short  
time, he took his  
glance as again, but ran  
and sister on  
forgetting, running  
and flowers,  
her ridicule  
with them; so  
came to an end  
the sun set  
and then I was  
looked I could  
make a change  
my presents  
they are," she  
Clayton, "she said,  
"I'm doing  
it!" I inquired  
faggie; "no  
Mrs. Clayton  
enough for  
friends for all  
I don't see  
ends with such  
mud is."  
"Indeed, "the Clay-  
ton girl of her  
sister, "they are," she  
layton and that  
belongs to them,  
don't have  
ried Mrs. Clay-  
ton precious little  
thing."  
rich then—  
d.

I understand  
seating horses  
like this: Mr.  
lands, young  
name was  
very rich;  
died when the  
widow marries  
the man in a  
widower, and  
now, though  
only little daugh-  
though son  
they said; an

TERRIFIC COMBAT.

A Fight to the Death Between a Bull and a Grizzly Bear.

The fight was going on two great eagles appeared from some mysterious eyrie and sailed and circled above the scene of the conflict, leisurely and gradually dropping nearer to the earth. Almost simultaneously with the appearance of the eagles I saw the heads of half a dozen hungry wolves emerge from the bushes where the fight had begun. I knew that the battle must soon end, and that the eagles and the wolves had scented the contest from afar, and knew by their infallible instinct that it must result in choice prey for them. The presence of these hungry birds and beasts of prey added to the terror of the bloody conflict.

The terrible fight continued. The ground was torn up and covered with blood for many feet around. Both animals were grievously wounded. It was plain that neither could hold out much longer. Maimed and gory, they fought with the certainty of death, the bear rolling over and over in the dust, vainly trying to avoid the fatal horns of his adversary, and the bull ripping, thrusting, and tearing the grizzly with irresistible ferocity. At last, as if determined to end the conflict, the bull drew back, lowered his head and made a third terrific charge, but blinded by the streams of blood that poured down his face, he missed his mark, stumbled and rolled headlong on the ground. In spite of his frightful injuries and great exhaustion the bear turned quickly and sprang upon his prostrate enemy. He seemed to have been suddenly invigorated by this turn of the battle in his favor. With merciless sweeps of his huge claws he tore the flesh in great masses from the bull's upturned side. The advantage the bear thus obtained over the bull seemed to be understood by the herd, and the bellowing increased, dirt was thrown about in clouds, and one big cow drew near the struggling animals, and I believe for a moment she intended to go to the aid of the herd's prostrate leader, so fierce was her aspect; and actions, but she simply circled around the bear and the bull, bellowing and pawing. In the meantime both the eagles and the wolves grew impatient of the delay in the battle's ending. The former would now and then swoop down as if to hurry up the finish, uttering sharp cries, and some waiting wolf would steal from his cover and make a closer and more courageous reconnaissance, snarling and snarling in apparent disappointment.

The bull pawed and grumbled under the tree for a few minutes, and then turned and walked toward the thicket, on the creek side of which there was a water-hole. The other cattle went quietly to grazing where I had seen them.

I suppose the bull started toward the water to get a drink at the water-hole, but he never got the drink. I saw him push his way into the thicket, and the next instant I could see that he had got into trouble of some kind, and that trouble proved to be a grizzly bear. A fierce struggle ensued in the thicket. The tops of the bushes swayed to and fro, and I could hear the heavy crash of the driftwood as the two powerful animals writhed in fierce embrace. A cloud of dust rolled up from the spot. It was not distant over 100 yards from the tree in which I had taken refuge. Scarcely two minutes elapsed before the bull broke through the bushes. His head was covered with blood, and great flakes of flesh hung from his forequarters. But instead of showing any signs of defeat he seemed literally to glow with defiance. Instinct had simplified him in his retreat to seek an open space. He was lithe and wiry, yet wonderfully massive about the shoulders, combining the rarest qualities of strength and symmetry. For a moment he stood glaring at the bushes he had retreated from, his nostrils distended, and his whole form fixed and rigid. But scarcely had I time to note all this when the bear, a huge repulsive-looking brute, broke through the opening. He was the most formidable specimen of his kind I had ever seen, and my sympathies were at once with the bull, in spite of his belligerent attitude toward me a few minutes before, but I had my serious doubts about the final results of the combat that began at once.

"Well, I had not done anything, but had a good general education, and could take notes in short-hand if a man would not talk too fast. I could also soon learn to operate a typewriter, I think."

You had read in the papers, then, about the young woman who came to New York who are utterly alone have a reunion this summer at the polo grounds? I have not been in New York very long, but since I've been there it seems to me that you and the other utterly lonely girls have taken the town. What brought you to New York, may I ask?"

"I came there to obtain employment, and it is strange and so harsh and so heartless there." She then took off her olskin bonnet and wept it almost full.

"What kind of work had you been accustomed to?"

"Well, I had not done anything, but had a good general education, and could take notes in short-hand if a man would not talk too fast. I could also soon learn to operate a typewriter, I think."

"I am glad you did not, for you would have been disappointed, perhaps. The opportunity for a young woman to obtain a situation in the office of a middle-aged capitalist, whose wife is consumptive and trying to draw to a hectic flush, are getting to be rare, and though you might win the esteem of such a one and lull him to rest by knocking a few low, throbbing notes out of your typewriter, yet I would advise you not to depend on finding such a situation as that."

"Then what would be your advice?"

"You say you never stenographed very much?"

"No, but I studied it at school and can make all the characters after I think a little."

"You think you could take down in shorthand the address of a deliberate talker—his postoffice address, I mean?"

"Oh, I know you are saying me. Of course I cannot write shorthand very fast, but I would be willing to learn."

"What salary would you expect while learning?"

"Oh, I would not demand a large salary at first, but I would try, oh, so hard, to learn rapidly."

"You never tried other work, did you, than what you are saying me. Of course I cannot write shorthand very fast, but I would be willing to learn."

"What salary would you expect while learning?"

"Now mind what I tell you," said old Mrs. Daggert to her daughter, Alvira, who was about to make her debut into society while visiting friends in the city. "You do just as I tell you, Alvira, and you'll make no mistakes. In the first place, don't eat potatoes, nor turnips, nor anything of that kind with your knife; use a spoon; and don't sop your bread in the dish gravy on the meat platter, as we plain, old-fashioned folks do here at home; take some gravy on your plate and sop it there; and don't pour your coffee out into your sasser, no matter how hot it is; blow it

out of your nose, old cow, you've got to go, of course 'tis hard to tell you so, of your fore-fathers and my own, for ages this old farm have known."

"We're lank and flabby—to be brief, we're fit for neither milk nor meat; we'll yield but little at your best, and then go dry six months to rest."

"Your horns are long, your bones the same, with whom eh large and under small. The different parts don't match at all."

"I looked at you in sad regret, And mourned to think we ever met, For every wrinkle in your horn Proclaims of wasted hay and corn. My neighbor farmer lives with ease, While I wear patches on my knees; for reason, simple, plain, and true, We've kept good stock, while I've kept you. You'd better breed."

"I'll try a better breed."

"I hardly see my error now."

"You've got to go, good bye, old cow."

TERRIFIC COMBAT.

The fight was going on two great eagles appeared from some mysterious eyrie and sailed and circled above the scene of the conflict, leisurely and gradually dropping nearer to the earth. Almost simultaneously with the appearance of the eagles I saw the heads of half a dozen hungry wolves emerge from the bushes where the fight had begun. I knew that the battle must soon end, and that the eagles and the wolves had scented the contest from afar, and knew by their infallible instinct that it must result in choice prey for them. The presence of these hungry birds and beasts of prey added to the terror of the bloody conflict.

Bill Nye in the Role of an Adviser.

Bill Nye has been down to Coney Island. While there he embraced an opportunity to assume the role of adviser to a shipwrecked female whose poverty permitted her to own but one bathing suit. Mr. Nye says:

Leaving my clothes, my conscientious scruples, and my teeth in charge of my maid I madly waded out to meet my doom. If I had been going out to meet anybody else but a moist dom I would have dressed differently. I heard several low, wealthy people say, "Get onto the gun-wiper going out to monkey with the tide." One glorious looking being, with her bathing trousers rolled up at the bottom so that they could not get wet, said in a tinkling voice: "There's a man who ought to have a sinker believed in him. He will never drown, but if a land breeze springs up pretty strong he will drift a long way out to sea."

I did not tell her that it was my intention to drift out to sea, because I was not acquainted with her, but that was really what I drifted out for.

After I had inhaled all the salt water that I thought was good for me I retired from the surf. I then dressed myself and strolled along the strand. There is no charge for strolling along the strand. The poorest man in New York, armed with large, wary club to keep off the bunko men, strolled along the strand with perfect safety.

Presently I came upon a young woman who was sitting by herself, gazing out to sea and weeping. At first I thought she was crying because some one had stolen her clothes while she was in the surf, but I soon saw that I was wrong.

She had her bathing suit on, and was sobbing and stabbing large holes in the sand with her toes.

"Pardon me," I said, with the air of a man of the world; "has your train gone away and left you, or have you swallowed one end of a breaker, as I did?"

"Please do not make game of me, sir," she said, at the same time shrinking back.

"It is nothing that could in the least interest you. Go away."

"No," said I, huskily, "I can not go away until the next boat, and I would be tickled almost to death if I could participate in your sorrow. I have no card with me, but I am connected with the press, and it would be better to give the story to me and let me get your exact language than to have it garbled by the other papers? Where do you reside?"

"I reside at present in New York," she said, gulping down a sob three sizes too large for her, "and I am utterly alone."

"Well, why don't you girls in New York who are utterly alone have a reunion this summer at the polo grounds? I have not been in New York very long, but since I've been there it seems to me that you and the other utterly lonely girls have taken the town. What brought you to New York, may I ask?"

"I came there to obtain employment, and it is strange and so harsh and so heartless there." She then took off her olskin bonnet and wept it almost full.

"What kind of work had you been accustomed to?"

"Well, I had not done anything, but had a good general education, and could take notes in short-hand if a man would not talk too fast. I could also soon learn to operate a typewriter, I think."

"I am glad you did not, for you would have been disappointed, perhaps. The opportunity for a young woman to obtain a situation in the office of a middle-aged capitalist, whose wife is consumptive and trying to draw to a hectic flush, are getting to be rare, and though you might win the esteem of such a one and lull him to rest by knocking a few low, throbbing notes out of your typewriter, yet I would advise you not to depend on finding such a situation as that."

"Then what would be your advice?"

"You say you never stenographed very much?"

"No, but I studied it at school and can make all the characters after I think a little."

"You think you could take down in shorthand the address of a deliberate talker—his postoffice address, I mean?"

"Oh, I know you are saying me. Of course I cannot write shorthand very fast, but I would be willing to learn."

"What salary would you expect while learning?"

"Now mind what I tell you," said old Mrs. Daggert to her daughter, Alvira, who was about to make her debut into society while visiting friends in the city. "You do just as I tell you, Alvira, and you'll make no mistakes. In the first place, don't eat potatoes, nor turnips, nor anything of that kind with your knife; use a spoon; and don't sop your bread in the dish gravy on the meat platter, as we plain, old-fashioned folks do here at home; take some gravy on your plate and sop it there; and don't pour your coffee out into your sasser, no matter how hot it is; blow it

out of your nose, old cow, you've got to go, of course 'tis hard to tell you so, of your fore-fathers and my own, for ages this old farm have known."

We're lank and flabby—to be brief, we're fit for neither milk nor meat; we'll yield but little at your best, and then go dry six months to rest."

Your horns are long, your bones the same, with whom eh large and under small. The different parts don't match at all."

"I looked at you in sad regret, And mourned to think we ever met, For every wrinkle in your horn Proclaims of wasted hay and corn. My neighbor farmer lives with ease, While I wear patches on my knees; for reason, simple, plain, and true, We've kept good stock, while I've kept you. You'd better breed."

"I'll try a better breed."

"I hardly see my error now."

"You've got to go, good bye, old cow."

TERRIFIC COMBAT.

The fight was going on two great eagles appeared from some mysterious eyrie and sailed and circled above the scene of the conflict, leisurely and gradually dropping nearer to the earth. Almost simultaneously with the appearance of the eagles I saw the heads of half a dozen hungry wolves emerge from the bushes where the fight had begun. I knew that the battle must soon end, and that the eagles and the wolves had scented the contest from afar, and knew by their infallible instinct that it must result in choice prey for them. The presence of these hungry birds and beasts of prey added to the terror of the bloody conflict.

Bill Nye in the Role of an Adviser.

Bill Nye has been down to Coney Island. While there he embraced an opportunity to assume the role of adviser to a shipwrecked female whose poverty permitted her to own but one bathing suit. Mr. Nye says:

Leaving my clothes, my conscientious scruples, and my teeth in charge of my maid I madly waded out to meet my doom. If I had been going out to meet anybody else but a moist dom I would have dressed differently. I heard several low, wealthy people say, "Get onto the gun-wiper going out to monkey with the tide." One glorious looking being, with her bathing trousers rolled up at the bottom so that they could not get wet, said in a tinkling voice: "There's a man who ought to have a sinker believed in him. He will never drown, but if a land breeze springs up pretty strong he will drift a long way out to sea."

I did not tell her that it was my intention to drift out to sea, because I was not acquainted with her, but that was really what I drifted out for.

After I had inhaled all the salt water that I thought was good for me I retired from the surf. I then dressed myself and strolled along the strand. There is no charge for strolling along the strand. The poorest man in New York, armed with large, wary club to keep off the bunko men, strolled along the strand with perfect safety.

Presently I came upon a young woman who was sitting by herself, gazing out to sea and weeping. At first I thought she was crying because some one had stolen her clothes while she was in the surf, but I soon saw that I was wrong.

She had her bathing suit on, and was sobbing and stabbing large holes in the sand with her toes.

"Pardon me," I said, with the air of a man of the world; "has your train gone away and left you, or have you swallowed one end of a breaker, as I did?"

"Please do not make game of me, sir," she said, at the same time shrinking back.

"It is nothing that could in the least interest you. Go away."

"No," said I, huskily, "I can not go away until the next boat, and I would be tickled almost to death if I could participate in your sorrow. I have no card with me, but I am connected with the press, and it would be better to give the story to me and let me get your exact language than to have it garbled by the other papers? Where do you reside?"

"I reside at present in New York," she said, gulping down a sob three sizes too large for her, "and I am utterly alone."

"Well, why don't you girls in New York who are utterly alone have a reunion this summer at the polo grounds? I have not been in New York very long, but since I've been there it seems to me that you and the other utterly lonely girls have taken the town. What brought you to New York, may I ask?"

"I came there to obtain employment, and it is strange and so harsh and so heartless there." She then took off her olskin bonnet and wept it almost full.

"What kind of work had you been accustomed to?"

"Well, I had not done anything, but had a good general education, and could take notes in short-hand if a man would not talk too fast. I could also soon learn to operate a typewriter, I think."

"I am glad you did not, for you would have been disappointed, perhaps. The opportunity for a young woman to obtain a situation in the office of a middle-aged capitalist, whose wife is consumptive and trying to draw to a hectic flush, are getting to be rare, and though you might win the esteem of such a one and lull him to rest by knocking a few low, throbbing notes out of your typewriter, yet I would advise you not to depend on finding such a situation as that."

"Then what would be your advice?"

"You say you never stenographed very much?"

"No, but I studied it at school and can make all the characters after I think a little."

"You think you could take down in shorthand the address of a deliberate talker—his postoffice address, I mean?"

"Oh, I know you are saying me. Of course I cannot write shorthand very fast, but I would be willing to learn."

"What salary would you expect while learning?"

"Now mind what I tell you," said old Mrs. Daggert to her daughter, Alvira, who was about to make her debut into society while visiting friends in the city. "You do just as I tell you, Alvira

## CHEAP CATTLE, BUT DEAR BEEF.

The Chicago *Times* recently had an article on this point which will apply equally well to Detroit. The retail prices of beef, butter, and cheese in this city, as compared with the price paid to the producers of those staples, are simply outrageous. Meats of all kind are very dear—the average retailer charging the same price for it as he did when cattle were selling 30 to 40 per cent higher. For cheese, factories are obtaining eight to nine cents per lb. for the choicest full creams. Not a pound of it can be bought in Detroit under 15 cents, and some dealers are getting 16 cents—charging seven cents for the mere handling of an article, for which the producer is only allowed nine cents at the outside. Butter was selling in the groceries at 30 to 35 cents per lb., while commission houses were selling the same article at 12 to 14 cents. Such prices work great injury to the producer, for they cut off his market. The mass of people simply refrain from using an article when the price gets too high, and the result is a stagnation in the trade; producers are obliged to sell low to get rid of their stock, while the retail dealer secures it at nominal prices. The consumer gets very little benefit from the fall in prices of the articles enumerated. The market for all of them could be greatly enlarged, were they only sold at a fair margin of profit, but when profits running from 80 to 150 per cent are charged, the only way in which the consumer can help himself is to buy less of them. The *Times* says:

"Hardly ever in the history of the country, certainly not for twenty years, has the price of live stock been as low as during the present season. Four years ago fair to premium cattle were in the market for from \$10 to six cents per pound. This season about half this sum is realized for the same grades of animals. Farmers are unable to make any money in raising cattle for the market. Many feeders, who have had a long experience in the business, have lost heavily by buying stock and food with a view of furnishing the market with choice beef."

"Still, while producers get only about half as much for their fat cattle as they did four years ago, city and town consumers pay much for their steaks, roasts, and fresh and salted pieces of meat they eat.

"The fall of beef on the farms, however, and range has not affected the price of beef at the retail market or the restaurant. Portions of the animals for which farmers receive but two or 3½ cents per lb., live weight, are sold in the retail markets and suburban towns at 15 to 25 cents per pound. Some portions are sold for ten cents, and a few for something less than this sum. Few patrons of the retail butcher's shop, however, obtain any part of the dressed carcass for less than twice the price paid for the live animal. They pay this for corned beef, which is a species of pork of the carcass, and for salt for roots or pickles, or to use in any way except for making soup or boarding-house hash."

"Butchers claim that the weight of the dressed carcass is only half that of the live animal. Admitting that this is the case, the retail price of beef is, after all, exorbitant. Beefs are now dressed in slaughter houses for the offal they afford. This includes the hoofs, horns, blood and intestines, all of which command a ready sale. There is no part of the animal that is not worth something to the glue-maker and tallowender, and the hide of the average steer weighs ninety pounds. It is claimed that the suit of a fat steer is worth \$5 to the manufacturer of butterine. There is considerable good tallow that is valuable for making candles, and a still larger amount that is used for making soap and lubricants. Tongues sell readily at fifteen cents each, by the quantity, and even the tails of cattle are now articles of commerce. Liver, which was once given away to the regular patrons of butchers, now sells for at least five cents per pound. Persons who buy cattle for the bones at the rate of ten or fifteen cents per pound, which the butcher proceeds, after the weighing, to remove, end sell to another party."

"Apparently there would be a fair margin of profit in selling dressed beef at twice the price paid for live animals. But who gets beef at anything like this price? Very few of the choice beefs that come to this market are slaughtered and sold here. The best are sent to England, and those comprising the next quality are carried to eastern cities. The average citizen of Detroit, however, can buy beef to sell for about three cents a pound, and if he obtains it at twelve cents per pound, he is assured that he has obtained a bargain."

"We are prone to complain of the extortions of corporations and various monopolies, but they are by no means the worst's extortions that we tolerate. No patent monopoly supported by the tariff, is as oppressive as those which result from combinations of tradesmen. There are no profits on manufactured goods that compare with those on bovine products. There is a profit of 150 per cent on the cattle held in this city. The retail price of beef is by no means strange that dealers are able to secure these profits. They quietly form combinations to keep up prices, while their patrons submit to their exactations."

## PERMANENT PASTURES.

From Our Paris Correspondent.  
A good deal of discussion is still taking place, respecting the Goetz method for laying down land to permanent pasture. His experiments commenced in 1873-4, and he maintains he can, by careful top dressing of fertilizers, indefinitely obtain a return of four to five tons of hay per acre. Practitioners are not so enthusiastic. M. Goetz makes a selection of thirteen or seventeen choice grasses, suited to the locality. The mixture he sows at the rate of 60 to 70 lbs per acre, which represents a cost of 50 to 60¢. He excludes clover, lucerne, sainfoin, etc., which tap the subsoil for mineral food. Thus the surface soil is his working area. And for success even here, the application of fertilizers must be liberal. Hence, the plant would soil poor, thin soils, or those exhausted or tired from clover cropping. In reality four grasses form the bases of the sowing. *Fromentalia*, (*aenaria elatior*); *dactylo*, (*Dactylis glomerata*); ray grass, (*Zizaniopsis pumila*); and the wooly houque, (*Holcus lanatus*), in the proportion of one-half, one-fifth, one-seventh, respectively; the other varieties are generally selected for their odoriferous qualities.

It is good plan for the farmer to raise each variety of grass seed himself. In spring, if the soil has been well prepared, and the sowing period favorable, two months will suffice for producing an excellent green carpet. The following spring, the fertilizers—nitrate of soda or sulphate of ammonia, etc., as may best suit the land, are applied at the rate of one to three cts. per acre. When the crop is intended to be cut for hay, the grass should be mown when coming into flower; if later the principal grasses will become hard and woody.

Purchases of Goetz-raised hay, assert it

lacks the fineness and aroma of that from natural meadows, so never brings so high a price, but the yield is heavier, the latter whenever laid, is thus difficult to mow by the machine. The Goetz system has certainly succeeded in the case of poor, almost worthless lands, in producing an abundant supply of fodder, for the support of six cows per five acres.

## CIDER MAKING.

Our Paris Correspondent Details French Methods and Ideas—The Manufacture Increasing, Owing to Failure of the Vine-yards.

Cider making is on the increase in France since the destruction of about one-third of the total of vineyards. In any case the beverage has been peculiar since the eleventh century to Normandy, Picardy and Brittany, as wine has been to other regions. Where climate and soil suit the growth of apple trees, cider can be made, and if it be well made the beverage is healthy, stimulating and nourishing. From the time of Columella, the secret of cider making has remained unchanged. Select three classes of apples, sweet, bitter and acid in equal proportions. (However, in the valley of the Auge, where the best French cider comes from, no acid apples are employed.) Care should be taken to select the fruit arriving at a common period of maturity. The sweet apples produce an agreeable drink but weak in color and not keeping long; the bitter impart strength, but tend to thicken the beverage; while the acid apples yield a weak cider, thin and apt to brown when in cask. As a wound begins to form pus, wash it daily with warm water, and apply to it a solution of carbolic acid, one part of the acid to 80-100 parts of water. If proud flesh (a soft, fibrous projection) appears, burn it out by lightly touching it with a stick of lunar caustic. If a wound becomes hard, apply some lard or vaseline, and prevent it from being exposed to the air by bandages. If it is very soft and pale, expose it more to the air. If a wound has a healthy appearance, but heals slowly or not at all, apply gentle stimulants, such as tincture of myrrh, aloes, arnica, etc.

Punctured wounds do not bleed as much as incised ones, but generally suppurate more, and are deeper. As the opening of these wounds is generally very small it is sometimes necessary to enlarge it to allow the pus to escape; for pus, wherever located, should have free exit, as otherwise it is liable to burrow an outlet for itself. These outlets (fistules) have a lining of diseased tissue, and have to be treated similar to those diseases known as poli evill, fistulous, withers, guitars, etc. If a wound is near a joint it is very dangerous, as it may cause open joint, and the air must be prevented from entering them.—*Farmers' Advocate*.

## Commercial.

## DETROIT WHOLESALE MARKET.

DETROIT, July 25, 1887.

**FLOUR.**—Stocks are very light. All the offerings are old stock, as four of the new crop have not yet made its appearance. It would probably sell \$25-\$30 per bushel lower than old. Quotations are as follows:

**Michigan, stone process.** ..... \$5 50 60

**Ohio, stone process.** ..... 6 00 15

**Michigan, round process.** ..... 6 00 25

**Minnesota, bakers.** ..... 4 00 25

**Michigan, patents.** ..... 3 00 20

**Wheat, low grade.** ..... 2 50 25

**HOGS.**

The offerings of hogs numbered 1,697 head, against 459 last week. The hog market opened up very slow, buyers offering 20 to 30 cents below the rates of last week for the receipts. Some of the sellers finally closed out at a decline of about 20 cents, but the bulk of the receipts went east in first hands.

**C. Roe** sold Webb Bros 71 av 80 lbs at \$3 60.

**Switzer & Ackley** sold John Robinson 202 av 70 lbs at \$2 50.

**C. Roe** sold John Robinson 139 av 51 lbs at \$3 50.

**McMullen** sold John Robinson 32 av 68 lbs at \$3 10.

**McMullen** sold Stevens 202, part lambs, av 50 lbs at \$4.

**McMullen** sold Stevens 202, part lambs, av 50 lbs at \$4.

**King's Yards.**

Saturday, July 23, 1887.

The market is open 1:15 up at these yards with 525 head of cattle sold. A good portion of the receipts were western cattle, the bulk of which were consigned direct to dealers. The demand for Michigan hams was fully equal to the supply, and the market ruled active at strong last weeks prices.

**Beardealso** sold Wreford & Beck 10 good heifers and steers and heifers av 900 lbs at \$3 50.

**McMullen** sold Lossmore 11 fair heifers av 582 lbs at \$2 35.

**Guthrie** sold Vogt 8 fair heifers av 766 lbs at \$2 25 and 3 fair steers to Hersch av 870 lbs at \$2 50.

**C. McHugh** sold Kammon a mixed lot of 12 head of cattle, mostly steers, av 770 lbs at \$2 75.

**Switzer & Ackley** sold Hough 12 layers av 770 lbs at \$2 50.

**Wreford & Beck** sold Marx 25 mixed西部牛 at 869 lbs at \$3 40, and 4 to Phillips & Wreford 177 lbs at \$2 65.

**Switzer & Ackley** sold Koenig a lot of 11 head of fair butchers' stock at \$2 50.

**Wreford & Beck** sold McFee 53 mixed western cattle at 869 lbs at \$3 10.

**Beardealso** sold Genther 3 choice butchers' steers and 963 lbs at \$3 25.

**Hartford & Knobell** good butchers' steers av 1,050 lbs at \$3 75 and 5 good heifers to Orleong av 790 lbs at \$3 50.

**Guthrie** sold Meyers 5 good heifers av 794 lbs at \$3 50.

**Switzer & Ackley** sold Kannman 5 fair butchers' steers av 1,068 lbs at \$3 50.

**Wreford & Beck** sold McFee 53 mixed western cattle at 870 lbs at \$2 72.

**Purdy** sold Reagen a mixed lot of 11 head of butchers' stock av 728 lbs at \$2 75.

**Switzer & Ackley** sold 25 fair butchers' stock at \$2 75.

**Switzer & Ackley** sold Brooks 11 stockers av 788 lbs at \$2 75.

**Switzer & Ackley** sold 25 fair butchers' stock at \$2 75.

**Switzer & Ackley** sold Andrews 25 av 78 lbs at \$2 75.

**Green** sold Hough 25 fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.

**Switzer & Ackley** sold 14 head of fair butchers' stock at \$2 50.